Massachusetts Department of Environmental Protection
Source Water Assessment and Protection (SWAP) Report
for

North Reading Water Department

What is SWAP?

The Source Water Assessment and Protection (SWAP) program, established under the federal Safe Drinking Water Act, requires every state to:

- inventory land uses within the recharge areas of all public water supply sources;
- assess the susceptibility of drinking water sources to contamination from these land uses; and
- publicize the results to provide support for improved protection.

Susceptibility and Water Quality

Susceptibility is a measure of a water supply's potential to become contaminated due to land uses and activities within its recharge area.

A source's susceptibility to contamination does *not* imply poor water quality.

Water suppliers protect drinking water by monitoring for more than 100 chemicals, disinfecting, filtering, or treating water supplies, and using source protection measures to ensure that safe water is delivered to the tap.

Actual water quality is best reflected by the results of regular water tests. To learn more about your water quality, refer to your water supplier's annual Consumer Confidence Reports.

Table 1: Public Water System Information

PWS Name	North Reading Water Department
PWS Address	235 North Street
City/Town	North Reading, Massachusetts 01864
PWS ID Number	3213000
Local Contact	Mark Clark
Phone Number	978-664-6060

Introduction

We are all concerned about the quality of the water we drink. Drinking water wells may be threatened by many potential contaminant sources, including storm runoff, road salting, and improper disposal of hazardous materials. Citizens and local officials can work together to better protect these drinking water sources.

Purpose of this report:
This report is a planning tool to support local and state efforts to improve water supply protection. By identifying land uses within water supply protection areas that may be potential sources of contamination, the assessment helps focus protection efforts on appropriate Best Management Practices (BMPs) and drinking water source protection measures.

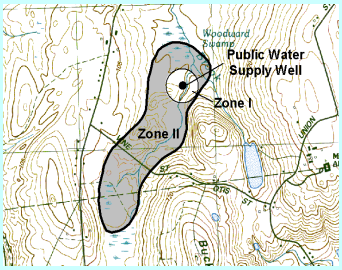
Refer to Table 3 for Recommendations to address potential sources of contamination. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

This report includes the following sections:

1. Description of the Water System
2. Land Uses within Protection Areas
3. Source Water Protection Conclusions and Recommendations
4. Appendices

What is a Protection Area?

A well's water supply protection area is the land around the well where protection activities should be focused. Each well has a Zone I protective radius and a Zone II protection area.



Glossary

Aquifer: An underground water-bearing layer of permeable material that will yield water in a usable quantity to a well.

Hydrogeologic Barrier: An underground layer of impermeable material (i.e. clay) that resists penetration by water.

IWPA: A 400-foot to ½ mile radius around a public water supply well proportional to its pumping rate; the area DEP recommends for protection in the absence of a defined Zone II. To determine IWPA radius, refer to the attached map.

Recharge Area: The surface area that contributes water to a well.

Zone I: The area closest to a well; a 100 to 400 foot radius proportional to the well's pumping rate. This area should be owned or controlled by the water supplier and limited to water supply activities.

Zone II: The primary recharge area for the aquifer. This area is defined by hydrogeologic studies that must be approved by DEP. Refer to the attached map to determine the land within your Zone II.

Section 1: Description of the Water System

Zone II #: 351 ***Susceptibility:*** High

Well Names	***Source IDs***
Railroad Bed Wells	3213000-01G
Lakeside Blvd. Well #2	3213000-02G
Lakeside Blvd. Well #3	3213000-03G
Central Street Wellfield	3213000-04G
Route 125 Well	3213000-05G
Lakeside Blvd. Well #4	3213000-07G

IWPA ***Susceptibility:*** High

Well Names	***Source IDs***
Stickney Well	3213000-06G

The North Reading Water Department (North Reading) maintains and operates seven public water supply sources. North Reading's sources are located within the Ipswich River basin. The Railroad Bed Wells (01G), Lakeside Blvd. Well #2 (02G), Lakeside Blvd. Well #3 (03G), Lakeside Blvd. Well #4 (07G), Central Street Wellfield (04G) and Route 125 Well (05G) wellhead protection area is located within the towns of Andover, North Reading and Wilmington. The Stickney Well (06G), which is an inactive source, has an Interim Wellhead Protection Area (IWPA) that is located in North Reading and Wilmington. Each well has a Zone I radius of 400 feet; tubular wells, such as the Central Street Wellfield, have a Zone I radius of 250 feet. The wells are located in an aquifer with a high vulnerability to contamination due to the absence of hydrogeologic barrier (i.e. confining clay layer) that can prevent contaminant migration. Please refer to the attached map of the Zone II and IWPA.

For current information on monitoring results and treatment, please contact the Public Water System contact person listed above in Table 1 for a copy of the most recent Consumer Confidence Report. Drinking water monitoring reporting data are also available on the web at http://www.epa.gov/safewater/ccr1.html.

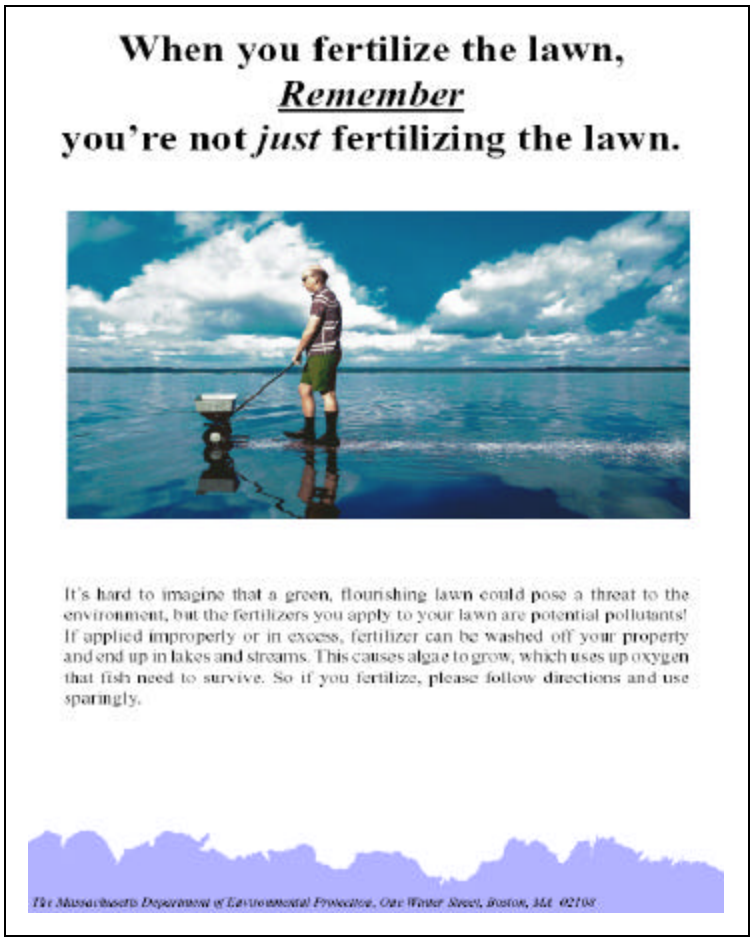
Section 2: Land Uses in the Protection Areas

The IWPA and Zone II for North Reading are primarily a mixture of forest and residential land uses, with a portions consisting of mining, commercial, and industrial activities (refer to attached map for details). Land uses and activities that are potential sources of contamination are listed in Table 2, with further detail provided in the Table of Regulated Facilities and Table of Underground Storage Tanks in Appendix B.

Key Land Uses and Protection Issues include:

1. Activities in Zone I
2. Hazardous Materials Storage and Use
3. Residential Land Uses
4. Transportation Corridors
5. Oil or Hazardous Material Contamination Sites
6. Comprehensive Wellhead Protection Planning

The overall ranking of susceptibility to contamination for the all of North Reading's wells is high, based on the presence of at least one high threat land use within the water supply protection areas, as seen in Table 2.



1. Activities in Zone Is – The Zone I for the Railroad Bed Wells (01G), Lakeside Blvd. Well #2 (02G), Lakeside Blvd. Well #3 (03G), Lakeside Blvd. Well #4 (07G), Route 125 Well (05G), and Stickney Well (06G) is a 400 foot radius around each wellhead. The Zone I for the Central Street Wellfield (04G) is a 250 foot radius around each well in the wellfield. Massachusetts drinking water regulations (310 CMR 22.00) require public water suppliers to own the Zone I, or control the Zone I through a conservation restriction. Only water supply activities are allowed in the Zone I. However, many public water supplies were developed prior to the Department's regulations and contain non-water supply activities such as homes and public roads. The combined Zone I for North Reading's Lakeside Blvd. Wells (02G, 03G, 07G) contains homes with on-site septic systems, and a local road; the Route 125 Well (05G) is intersected by Route 125, which is a major transportation corridor.

Zone I Recommendations:

- ✓ To the extent possible, remove all non-water supply activities from the Zone Is to comply with DEP's Zone I requirements.
- ✓ Use BMPs for the storage, use, and disposal of hazardous materials such as water supply chemicals and maintenance chemicals.
- ✓ Do not use or store pesticides, fertilizers or road salt within the Zone I.
- ✓ Keep any new non-water supply activities out of the Zone I.

2. Hazardous Materials Storage and Use – A small percent of the land area within the Zone II and IWPA contains commercial, industrial, and mining land uses. Many small businesses and industries use hazardous materials, produce hazardous waste products, and/or store large quantities of hazardous materials in UST/AST. If hazardous materials are improperly stored, used, or disposed, they become potential sources of contamination. Hazardous materials should never be disposed of to a septic system or floor drain leading directly to the ground.

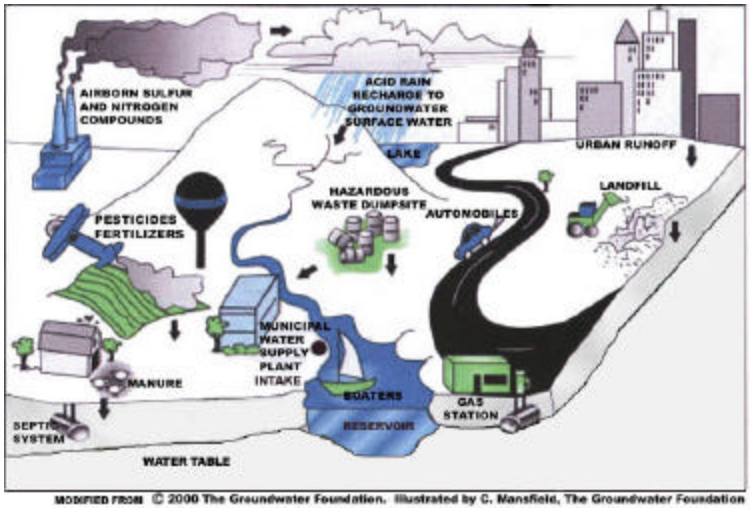


Figure 1: Sample watershed with examples of potential sources of contami-

Hazardous Materials Storage and Use Recommendations:

- ✓ Educate local businesses on best management practices for protecting water supplies. Distribute the fact sheet "Businesses Protect Drinking Water" available in Appendix A and on www.mass.gov/dep/brp/dws/protect.htm, which provides BMP's for common business issues.
- ✓ Work with local businesses to register those facilities that are unregistered generators of hazardous waste or waste oil. Partnerships between businesses, water suppliers, and communities enhance successful public drinking water protection practices.
- ✓ Educate local businesses on Massachusetts floor drain requirements. See brochure "Industrial Floor Drains" for more information.

3. Residential Land Uses – Residential areas are common throughout the IWPA and Zone IIs. Some of the areas have public sewers, and some use septic systems. If managed improperly, activities associated with residential areas can contribute to drinking water contamination. Common potential sources of contamination include:

- **Septic Systems** – Improper disposal of household hazardous chemicals to septic systems is a potential source of contamination to the groundwater because septic systems lead to the ground. If septic systems fail or are not properly maintained they can be a potential source of microbial contamination.

- **Household Hazardous Materials** - Hazardous materials may include automotive wastes, paints, solvents, pesticides, fertilizers, and other substances. Improper use, storage, and disposal of chemical products used in homes are potential sources of contamination.
- **Heating Oil Storage** - If managed improperly, Underground and Aboveground Storage Tanks (UST and AST) can be potential sources of contamination due to leaks or spills of the fuel oil they store.
- **Stormwater** – Catch basins transport stormwater from roadways and adjacent properties to the ground. As flowing stormwater travels, it picks up debris and contaminants from streets and lawns. Common potential contaminants include lawn chemicals, pet waste, and contaminants from automotive leaks, maintenance, washing, or accidents.

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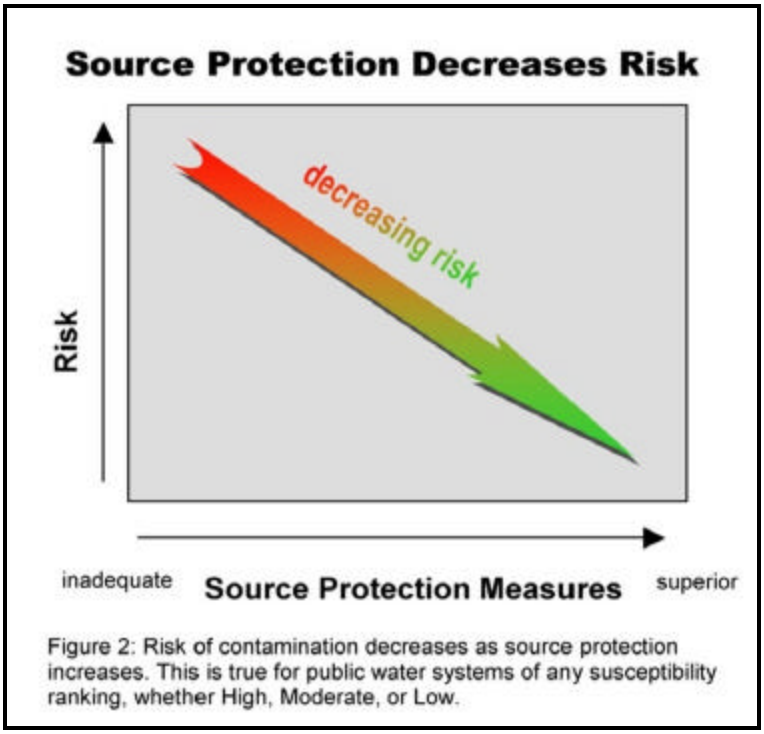

Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

Potential Source of Contamination vs. Actual Contamination

The activities listed in Table 2 are those that typically use, produce, or store contaminants of concern, which, if managed improperly, are potential sources of contamination (PSC).

It is important to understand that a release may never occur from the potential source of contamination provided facilities are using best management practices (BMPs). If BMPs are in place, the actual risk may be lower than the threat ranking identified in Table 2. Many potential sources of contamination are regulated at the federal, state and/or local levels, to further reduce the risk.

Table 2: Land Use in the Protection Areas (IWPA and Zones II)

For more information, refer to Appendix B: Regulated Facilities within the Water Supply Protection Area

Land Uses	Quantity	Threat	Zone II #/ IWPA	Potential Contaminant Sources*
Commercial				
Service Stations/ Auto Repair Shops	1	H	IWPA	Automotive fluids and solvents: spills, leaks, or improper handling
Bus and Truck Terminals	3	H	IWPA	Spills, leaks, or improper handling of fuels and maintenance chemicals
Golf Courses	1	M	351	Over-application or improper handling of fertilizers or pesticides
Medical Facilities	1	M	351	Spills, leaks, or improper handling or storage of biological, chemical, and radioactive wastes
Sand and Gravel Mining/ Washing	1	M	351	Spills or leaks from heavy equipment, fuel storage, clandestine dumping
Industrial				
Asphalt, Coal Tar, and Concrete Plants	1	M	351	Spills, leaks, or improper handling or storage of hazardous chemicals and wastes
Industry/Industrial Parks	1	H	351	Spills, leaks, or improper handling or storage of industrial chemicals and metals
Machine/Metalworking Shops	1	H	351	Spills, leaks, or improper handling of solvents; metal tailings
Pharmaceutical Manufacturers	1	H	351	Spills, leaks, or improper handling and or storage of chemicals
Residential				
Fuel Oil Storage (at residences)	100+	M	IWPA, 351	Fuel oil: spills, leaks, or improper handling
Lawn Care/Gardening	100+	M	IWPA, 351	Pesticides: over-application or improper storage and disposal
Septic Systems/Cesspools	100+	M	IWPA, 351	Hazardous chemicals: microbial contaminants, and improper disposal
Miscellaneous				
Aboveground Storage Tanks	2	M	IWPA, 351	Spills, leaks, or improper handling of materials stored in tanks
Large Quantity Hazardous Waste Generators	2	H	IWPA	Spills, leaks, or improper handling or storage of hazardous materials and waste
Oil or Hazardous Material Sites	10	--	IWPA, 351	Tier Classified Oil or Hazardous Materials Sites are not ranked due to their site-specific character. Individual sites are identified in Appendix B.

Land Uses	Quantity	Threat	IWPA/ Zone II #	Potential Contaminant Sources*
Miscellaneous				
Road and Maintenance Depots	1	M	351	Spills, leaks, or improper handling or storage of deicing materials, automotive fluids, fuel storage, and other chemicals
Small Quantity Hazardous Waste Generators	6	M	IWPA, 351	Spills, leaks, or improper handling or storage of hazardous materials and waste
Stormwater Drains/ Retention Basins	100+	L	IWPA, 351	Debris, pet waste, and chemicals in stormwater from roads, parking lots, and lawns
Transmission Line Rights-of-Way	1	L	351	Construction and corridor maintenance, over-application or improper handling of herbicides
Transportation Corridors	3	M	351	Accidental leaks or spills of fuels and other hazardous materials, over-application or improper handling of pesticides
Underground Storage Tanks	10	H	IWPA, 351	Spills, leaks, or improper handling of stored materials
Very Small Quantity Hazardous Waste Generators	6	L	IWPA, 351	Spills, leaks, or improper handling or storage of hazardous materials and waste
Water Treatment Sludge Lagoons	4	M	351	Improper management of sludge and wastewater

Table 2 Notes:

1. When specific potential contaminants are not known, typical potential contaminants or activities for that type of land use are listed. Facilities within the watershed may not contain all of these potential contaminant sources, may contain other potential contaminant sources, or may use Best Management Practices to prevent contaminants from reaching drinking water supplies.
2. For more information on regulated facilities, refer to Appendix B: Regulated Facilities within the Water Supply Protection Area information about these potential sources of contamination.
3. For information about Oil or Hazardous Materials Sites in your protection areas, refer to Appendix C: Tier Classified Oil and/or Hazardous Material Sites.

*** THREAT RANKING** - The rankings (high, moderate or low) represent the relative threat of each land use compared to other PSCs. The ranking of a particular PSC is based on a number of factors, including: the type and quantity of chemicals typically used or generated by the PSC; the characteristics of the contaminants (such as toxicity, environmental fate and transport); and the behavior and mobility of the pollutants in soils and groundwater.

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Residential Land Use Recommendations:

- ✓ Educate residents on best management practices (BMPs) for protecting water supplies. Distribute the fact sheet "Residents Protect Drinking Water" available in Appendix A and on www.mass.gov/dep/brp/dws/protect.htm, which provides BMPs for common residential issues.
- ✓ Work with planners to control new residential developments in the water supply protection areas.
- ✓ Promote BMPs for stormwater management and pollution controls.

4. Transportation Corridors - Transportation corridors and other paved and unpaved local roads cross through the water supply protection areas. Spills from vehicular accidents are a major concern. In addition, roadway construction, maintenance, and typical highway use can all be potential sources of contamination.

Accidents can lead to spills of gasoline and other potentially dangerous transported chemicals. Roadways are frequent sites for illegal dumping of hazardous or other potentially harmful wastes. De-icing salt, automotive chemicals and other debris on roads are picked up by stormwater and wash into catch basins.

What are "BMPs?"

Best Management Practices (BMPs) are measures that are used to protect and improve surface water and groundwater quality. BMPs can be structural, such as oil & grease trap catch basins, nonstructural, such as hazardous waste collection days or managerial, such as employee training on proper disposal procedures.

Transportation Corridor Recommendations:

- ✓ Wherever possible, ensure that drains discharge stormwater outside of the Zone I.
- ✓ Identify stormwater drainage systems along transportation corridors. If maps aren't yet available, work with town officials to investigate mapping options such as the upcoming Phase II Stormwater Rule requiring some communities to complete stormwater mapping.
- ✓ Work with local emergency response teams to ensure that any spills within the Zone II can be effectively contained. Review storm drainage maps with emergency response teams.
- ✓ Work with the Town and State to best manage stormwater in the Zone II. Best management practices include street sweeping, vegetative swales, and regular catch basin inspection, cleaning and maintenance.

5. Presence of Oil or Hazardous Material Contamination Sites – The Zone II contains DEP Tier Classified Oil and/or Hazardous Material Release Sites indicated on the map as Release Tracking Numbers 3-0000518, 3-0001813, 3-0002363, 3-0003766, 3-0004170, and 3-0019809. Refer to the attached map and Appendix C for more information.

Oil or Hazardous Material Contamination Sites Recommendation:

- ✓ Monitor progress on any ongoing remedial action conducted for the known oil or contamination sites.

6. Protection Planning – Currently, the Town of North Reading has a groundwater protection bylaw that meets DEP's Groundwater Protection regulations 310 CMR 22.21. Protection planning protects drinking water by managing the land area that supplies water to a well. A Wellhead Protection Plan coordinates community efforts, identifies protection strategies, establishes a timeframe for implementation, and provides a forum for public participation. There are resources available to help communities develop a plan for protecting drinking water supply wells.

Protection Planning Recommendations:

- ✓ Coordinate efforts with the Town of Andover to include North Reading's source protection areas in local wellhead protection controls. For more information on DEP land use controls see http://mass.gov /dep/brp/dws/protect.htm.
- ✓ If local controls do not regulate floor drains, be sure to include floor drain controls that meet 310 CMR 22.21(2).
- ✓ Work with town boards to review and provide recommendations on proposed development within your water supply protection areas. To obtain information on build-out analyses for the town, see the Executive Office of Environmental Affairs' community preservation web site, http://commpres.env.state.ma.us/.

Other land uses and activities within the IWPA and Zone II are included in Table 2. Refer to Table 2 and Appendix 2 for more information about these land uses.

Identifying potential sources of contamination is an important initial step in protecting your drinking water sources. Further local investigation will provide more in-depth information and may identify new land uses and activities that are potential sources of contamination. Once potential sources of contamination are identified, specific recommendations like those below should be used to better protect your water supply.

What is a Zone III?

A Zone III (the secondary recharge area) is the land beyond the Zone II from which surface and ground water drain to the Zone II and is often coincident with a watershed boundary.

The Zone III is defined as a secondary recharge area for one or both of the following reasons:

1. The low permeability of underground water bearing materials in this area significantly reduces the rate of groundwater and potential contaminant flow into the Zone II.
2. The groundwater in this area discharges to a surface water feature such as a river, rather than discharging directly into the aquifer.

The land uses within the Zone III are assessed only for sources that are shown to be groundwater under the direct influence of surface water.

Benefits of Source Protection

Source Protection helps protect public health and is also good for fiscal fitness:

- Protects drinking water quality at the source
- Reduces monitoring costs through the DEP Waiver Program
- Treatment can be reduced or avoided entirely, saving treatment costs
- Prevents costly contamination clean-up
- Preventing contamination saves costs on water purchases, and expensive new source development

Contact your regional DEP office for more information on Source Protection and the Waiver Program.

Section 3: Source Water Protection Conclusions and Recommendations

Current Land Uses and Source Protection:
As with many water supply protection areas, North Reading's IWPA and Zone II contain potential sources of contamination. However, source protection measures reduce the risk of actual contamination, as illustrated in Figure 2.

The water supplier is commended for taking an active role in promoting source protection measures in the Water Supply Protection Areas through:

- Receiving a grant from DEP to develop a Wellhead Protection Plan
- Providing household hazardous waste collection facility

Source Protection Recommendations:
To better protect the sources for the future:

- ✓ Inspect the Zone I regularly, and when feasible, remove any non-water supply activities.
- ✓ Educate residents on ways they can help you to protect drinking water sources.
- ✓ Work with emergency response teams to ensure that they are aware of the stormwater drainage in your Zone II and to cooperate on responding to spills or accidents.
- ✓ Partner with local businesses to ensure the proper storage, handling, and disposal of hazardous materials.

Conclusions:
These recommendations are only part of your ongoing local drinking water source protection. Additional source protection recommendations are listed in Table 3, the Key Issues above, and Appendix A.

DEP staff, informational documents, and resources are available to help you build on this SWAP report as you continue to improve drinking water protection in your community. Grants and loans are available through the Drinking Water State Revolving Loan Fund, the Clean Water State Revolving Fund, and other sources. For more information on grants and loans, visit the Bureau of Resource Protection's Municipal Services web site at: http://mass.gov/dep/brp/mf/mfpubs.htm.

The assessment and protection recommendations in this SWAP report are provided as a tool to encourage community discussion, support ongoing source protection efforts, and help set local drinking water protection priorities. Citizens and community officials should use this SWAP report to spur discussion of local drinking water protection measures. The water supplier should supplement this SWAP report with local information on potential sources of contamination and land uses. Local information should be maintained and updated periodically to reflect land use changes in the Zone II. Use this information to set priorities, target inspections, focus education efforts, and to develop a long-term drinking water source protection plan.

Top 5 Reasons to Develop a Local Wellhead Protection Plan

❶ Reduces Risk to Human Health

❷ Cost Effective! Reduces or Eliminates Costs Associated With:

- Increased groundwater monitoring and treatment
- Water supply clean up and remediation
- Replacing a water supply
- Purchasing water

❸ Supports municipal bylaws, making them less likely to be challenged

❹ Ensures clean drinking water supplies for future generations

❺ Enhances real estate values – clean drinking water is a local amenity. A community known for its great drinking water in a place people want to live and businesses want to locate.

Additional Documents:

To help with source protection efforts, more information is available by request or online at mass.gov/dep/brp/dws including:

1. Water Supply Protection Guidance Materials such as model regulations, Best Management Practice information, and general water supply protection information.
2. MA DEP SWAP Strategy
3. Land Use Pollution Potential Matrix
4. Draft Land/Associated Contaminants Matrix

Table 3: Current Protection and Recommendations

Protection Measures	Status	Recommendations
Zone I		
Does the Public Water Supplier (PWS) own or control the entire Zone I?	**YES** (Central St. Wellfield)	Follow Best Management Practices (BMP's) that focus on good housekeeping, spill prevention, and operational practices to reduce the use and release of hazardous materials.
	NO (Railroad Bed Wells, Lakeside Blvd. Wells, Route 125 Well, Stickney Well)	To the extent possible, remove prohibited activities in Zone A to comply with DEP's Zone A requirements. Investigate options for gaining ownership or control of the Zone A.
Are the Zone Is posted with "Public Drinking Water Supply" Signs?	**NO**	Signs were removed for security purposes. "No Trespassing" signs can be posted as a substitute for "Public Drinking Water Supply" signs.
Are the Zone Is regularly inspected?	**YES**	Continue daily inspections of drinking water protection areas.
Are water supply-related activities the only activities within the Zone I?	**YES** (Central St. Wellfield, Railroad Bed Wells, Stickney Well)	Monitor for any non-water supply activities in Zone I, and investigate options for removing these activities.
	NO (Lakeside Blvd. Wells, Route 125 Well)	Monitor prohibited activities in Zone I, and investigate options for removing these activities.
Municipal Controls (Zoning Bylaws, Health Regulations, and General Bylaws)		
Does the municipality have Wellhead Protection Controls that meet 310 CMR 22.21(2)?	**YES**	The Town's bylaw meets DEP's requirements for wellhead protection. Refer to www.state.ma.us/dep/brp/dws/ for model bylaws and health regulations, and current regulations.
Do neighboring communities protect the water supply protection areas extending into their communities?	**Partial**	Work with the Town of Andover to encourage them to adopt local controls that include North Reading's wellhead protection area.
Planning		
Does the PWS have a wellhead protection plan?	**In Progress**	North Reading received a grant from DEP to develop and implement a wellhead protection plan. Follow "Developing a Local Wellhead Protection Plan" available at: www.state.ma.us/dep/brp/dws/.
Does the PWS have a formal "Emergency Response Plan" to deal with spills or other emergencies?	**YES**	Supplement plan by developing a joint emergency response plan with fire department, Board of Health, DPW, and local and state emergency officials. Coordinate emergency response drills with local teams.
Does the municipality have a wellhead protection committee?	**NO**	Will be addressed as part of the wellhead protection plan. Encourage committee to include representatives from citizens' groups, neighboring communities, and the business community.
Does the Board of Health conduct inspections of commercial and industrial activities?	**Fire Department**	For more guidance see "Hazardous Materials Management: A Community's Guide" at www.state.ma.us/dep/brp/dws/files/hazmat.doc
Does the PWS provide watershed protection education?	**Some**	Increase residential outreach through bill stuffers, school programs, Drinking Water Week activities, and coordination with local groups. Aim additional efforts at commercial uses within the IWPA and watershed.

Section 4: Appendices

A. Protection Recommendations
B. Regulated Facilities within the Water Supply Protection Area
C. Table of Tier Classified Oil and/or Hazardous Material Sites within the Water Supply Protection Areas
D. Additional Documents on Source Protection

For More Information

Contact Anita Wolovick in DEP's Wilmington Office at (978) 661-7768 for more information and assistance on improving current protection measures.

Copies of this report have been provided to the public water supplier, board of health, and the town.

APPENDIX A: DEP PERMITTED FACILITIES WITHIN NORTH READING WATER SUPPLY PROTECTION AREAS

DEP FACILITY NUMBER	FACILITY NAME	STREET ADDRESS	TOWN	PERMITTED ACTIVITY	ACTIVITY CLASS
251722	BARD MEDISYSTEMS	87 CONCORD ST	NORTH READING	DISCH	BELOW INDUSTRIAL WASTE WATER REG LEVELS
251722	BARD MEDISYSTEMS	87 CONCORD ST	NORTH READING	PLANT	AIR QUALITY PERMIT
251722	BARD MEDISYSYTEMS	87 CONCORD ST	NORTH READING	TURRPT	BELOW TOXICS USE REDUCTION REG LEVELS
29369	CENTRE TRUCKING SERVICES INC	81 CONCORD ST	NORTH READING	HANDLR	VERY SMALL QUANTITY GENERATOR OF HAZ WASTE
121254	LILY TRUCK LEASING	84 CONCORD ST	NORTH READING	HANDLR	SMALL QUANTITY GENERATOR OF HAZ WASTE
132775	NEW ENGLAND MOTOR FREIGHT INC	90 CONCORD ST	NORTH READING	HANDLR	VERY SMALL QUANTITY GENERATOR OF HAZ WASTE
131607	AGFA DIVISION, BAYER CORPORATION	200 BALLARDVALE ST	WILMINGTON	HANDLR	SMALL QUANTITY GENERATOR OF HAZ WASTE
131268	AMETEK AER0SPACE INC	50 FORDHAM RD	WILMINGTON	PLANT	AIR QUALITY PERMIT
131268	AMETEK AEROSPACE PRODUCTS INC	50 FORDHAM RD	WILMINGTON	GROUND	GROUNDWATER DISCHARGE
131268	AMETEK AEROSPACE PRODUCTS, INC.	50 FORDHAM RD	WILMINGTON	TURRPT	BELOW TOXICS USE REDUCTION REG LEVELS
357200	AZORES CORP	260 FORDHAM RD	WILMINGTON	HANDLR	VERY SMALL QUANTITY GENERATOR OF HAZ WASTE
26009	DUPONT E I DENEMOURS & CO INC	1 CORNELL PL	WILMINGTON	HANDLR	LARGE QUANTITY GENERATOR OF HAZ WASTE

DEP FACILITY NUMBER	FACILITY NAME	STREET ADDRESS	TOWN	PERMITTED ACTIVITY	ACTIVITY CLASS
376134	DUPONT PHOTONICS TECHNOLOGIES	100 FORDHAM RD	WILMINGTON	HANDLR	SMALL QUANTITY GENERATOR OF HAZ WASTE
900	DYNAMICS RESEARCH CORP	60 CONCORD ST	WILMINGTON	PLANT	RES APPLICATION APPROVED
323173	FISHMAN TRANSDUCERS	340D FORDHAM RD	WILMINGTON	HANDLR	VERY SMALL QUANTITY GENERATOR OF HAZ WASTE
134417	FRIDAY ENGINEERING INC	11 UPTON CT	WILMINGTON	HANDLR	VERY SMALL QUANTITY GENERATOR OF HAZ WASTE
379794	LOCKHEED MARTIN CORP	50 FORDHAM RD	WILMINGTON	HANDLR	LARGE QUANTITY GENERATOR OF HAZ WASTE
132847	REGIONAL HEALTH CENTER	500 SALEM ST	WILMINGTON	HANDLR	SMALL QUANTITY GENERATOR OF HAZ WASTE
134419	SHEA CONCRETE PRODUCTS INC	773 SALEM ST	WILMINGTON	HANDLR	VERY SMALL QUANTITY GENERATOR OF HAZ WASTE
308853	WILMINGTON DEPARTMENT OF PUBLIC WORKS	135 ANDOVER ST	WILMINGTON	HANDLR	SMALL QUANTITY GENERATOR OF WASTE OIL OR PCBS
308853	WILMINGTON DPW	135 ANDOVER ST	WILMINGTON	FULDSP	FUEL DISPENSER
371195	ZELLER & GMELIN	10 UPTON DR	WILMINGTON	HANDLR	SMALL QUANTITY GENERATOR OF HAZ WASTE

UNDERGROUND STORAGE TANKS WITHIN NORTH READING WATER SUPPLY PROTECTION AREAS

FACILITY NAME	ADDRESS	TOWN	DESCRIPTION	CAPACITY (GAL)	CONTENTS
LILY TRUCK LEASING CORP	84 CONCORD ST	NORTH READING	TRUCK/TRANSPORT	10000	DIESEL
LILY TRUCK LEASING CORP	84 CONCORD ST	NORTH READING	TRUCK/TRANSPORT	10000	DIESEL
NEW ENGLAND MOTOR FREIGHT	90 CONCORD ST	NORTH READING	TRUCK/TRANSPORT	10000	DIESEL
NEW ENGLAND MOTOR FREIGHT	90 CONCORD ST	NORTH READING	TRUCK/TRANSPORT	10000	DIESEL
NEW ENGLAND MOTOR FREIGHT	90 CONCORD ST	NORTH READING	TRUCK/TRANSPORT	8000	WASTE OIL
ROADWAY EXPRESS INC	95 CONCORD ST	NORTH READING	TRUCK/TRANSPORT	8000	DIESEL
ROADWAY EXPRESS INC	95 CONCORD ST	NORTH READING	TRUCK/TRANSPORT	8000	DIESEL
DEPARTMENT OF PUBLIC WORKS	135 ANDOVER ST	WILMINGTON	MUNICIPAL	10000	GASOLINE
DEPARTMENT OF PUBLIC WORKS	135 ANDOVER ST	WILMINGTON	MUNICIPAL	10000	DIESEL
DYNAMICS RESEARCH CORP	50 CONCORD ST	WILMINGTON	OTHER	4000	OTHER

For More Information On Underground Storage Tanks, Visit The Massachusetts Department Of Fire Services Web Site: Http://Www.State.Ma.Us/Dfs/Ust/Usthome.Htm

Note: This Appendix Includes Only Those Facilities Within The Water Supply Protection Area(s) That Meet State Reporting Requirements And Report To The Appropriate Agencies. Additional Facilities Located Within The Water Supply Protection Area(s) Should Be Considered In Local Drinking Water Source Protection Planning.

APPENDIX B – Table of Tier Classified Oil and/or Hazardous Material Sites within North Reading Water Supply Protection Areas

DEP's datalayer depicting oil and/or hazardous material (OHM) sites is a statewide point data set that contains the approximate location of known sources of contamination that have been both reported and classified under Chapter 21E of the Massachusetts General Laws. Location types presented in the layer include the approximate center of the site, the center of the building on the property where the release occurred, the source of contamination, or the location of an on-site monitoring well. Although this assessment identifies OHM sites near the source of your drinking water, the risks to the source posed by each site may be different. The kind of contaminant and the local geology may have an effect on whether the site poses an actual or potential threat to the source.

The DEP's Chapter 21E program relies on licensed site professionals (LSPs) to oversee cleanups at most sites, while the DEP's Bureau of Waste Site Cleanup (BWSC) program retains oversight at the most serious sites. This privatized program obliges potentially responsible parties and LSPs to comply with DEP regulations (the Massachusetts Contingency Plan – MCP), which require that sites within drinking water source protection areas be cleaned up to drinking water standards.

For more information about the state's OHM site cleanup process to which these sites are subject and how this complements the drinking water protection program, please visit the BWSC web page at http://www.state.ma.us/dep/bwsc. You may obtain site -specific information two ways: by using the BWSC Searchable Sites database at http://:www.state.ma.us/dep/bwsc/sitellst.htm, or you may visit the DEP regional office and review the site file. These files contain more detailed information, including cleanup status, site history, contamination levels, maps, correspondence and investigation reports, however you must call the regional office in order to schedule an appointment to view the file.

The table below contains the list of Tier Classified oil and/or Hazardous Material Release Sites that are located within your drinking water source protection area.

Table 1: Bureau of Waste Site Cleanup Tier Classified Oil and/or Hazardous Material Release Sites (Chapter 21E Sites) - Listed by Release Tracking Number (RTN)

RTN	Release Site Address	Town	Contaminant Type
3-0001813	Rte 125 N	Andover	Oil
3-0002363	95 Concord St	North Reading	Oil
3-0000518	50 Fordham Rd	Wilmington	Oil
3-0003766	100 Ainsworth Rd	Wilmington	Oil
3-0004170	319a Andover St	Wilmington	Oil
3-0019809	135 Andover St	Wilmington	Oil

For more location information, please see the attached map. The map lists the release sites by Release Tracking Number (RTN).